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| APPLICATION NO.                                                                          | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO. |
|------------------------------------------------------------------------------------------|-------------|----------------------|-----------------------------|------------------|
| 10/645,035                                                                               | 08/21/2003  | Michael E. Ring      | CRD 01482                   | 7356             |
| 7590 08/30/2005<br>JAMES RAY & ASSOCIATES<br>2640 Pitcairn Road<br>Monroeville, PA 15146 |             |                      | EXAMINER<br>BURCH, MELODY M |                  |
|                                                                                          |             |                      | ART UNIT<br>3683            | PAPER NUMBER     |

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/645,035 | <b>Applicant(s)</b><br>RING ET AL. |  |
|                              | <b>Examiner</b><br>Melody M. Burch   | <b>Art Unit</b><br>3683            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/5/05 has been entered.

### ***Drawings***

2. The drawings are objected to because in line 1 of paragraph [0036] of the application publication element number "98" is used to designate a cavity, however, in figure 2 element number "98" appears to be directed to a bolt. Also in figure 2 element number 56 points to a curved portion of the air spring but in the remarks filed 2/28/05 Applicant admitted that "56" was a planar surface. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement

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sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

### ***Claim Objections***

4. Claims 11-13, 16-18, and 20 are objected to because of the following informalities: in the first line of the claims 11-13 and 16-18 the phrase "An air spring actuator" should be changed to --An air spring actuator assembly-- to maintain a preamble that is consistent with that of the independent claim. (Also in the second line of claims 11 and 18 "said air spring actuator" should be changed to --said air spring actuator assembly--) And the phrase "one air bag" in the last line of claim 20 should be changed to --one inflatable air bag-- to maintain consistency. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 3, 7, 9-13, 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claims 2 and 3. The phrase "perpendicular thereto" first recited in line 5 from the bottom of claim 2 is indefinite. It is unclear to the Examiner as to whether "thereto" refers to the vertical member or the horizontal member.

Re: claim 7. The phrase "a pair of guide means" in line 2 is indefinite. It is unclear to the Examiner whether the guide means of claim 6 is intended to be included in or separate from the pair of guide means of claim 7. If Applicant intends for the pair of guide means to include the guide means of claim 6, Examiner recommends the use of such language as --wherein said first guide means and a second guide means from a pair of guide means, said second guide means directly connected...--. This modification also requires that claim 6 be amended to recite a first guide means.

Re: claim 9. It is unclear to the Examiner whether the recitation of "a second substantially vertically disposed plate like member" in section (e) of the claim is intended to be the same or different from that recited in section (b).

Re: claim 9. The claim lacks proper antecedent basis for the phrase "said first...planar surface portion" as recited in lines 3-4 of section (f).

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Re: claims 9 and 10. The phrase "securing it" first recited in line 3 of section (d) of claim 9 but also found in claim 10 is indefinite. It is unclear to the Examiner as to which component "it" intends to refer to.

The remaining claims are indefinite due to their dependency from claim 9.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-4, 6-13, 18, and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6116385 to Ring.

Re: claims 1 and 19. Ring shows in figures 1 and 3 an actuating member for a railway vehicle brake assembly, such railway vehicle brake assembly having an air bag actuator 58 incorporated therein, said actuating member comprising: a first substantially vertically disposed plate like member or right side of element 50, said first substantially vertically disposed plate like having a first substantially planer surface shown in the area of the lead line of number 51 engageable via intervening elements with a first surface shown in the area of the lead line of number 88 of a second substantially vertically disposed plate like member shown in the area of element number 83 attached to such air bag actuator, a substantially horizontally disposed plate like member shown in the area of the lead line of number 84 connected to the first substantially vertically disposed plate like member adjacent a bottom edge thereof and extending substantially

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perpendicular to the first planar surface of the first vertically disposed plate member for shielding at least a first portion of the air bag actuator from foreign material as shown, and a means shown at the left end of element 60 connected to a radially opposed second surface of the first vertically disposed plate like member via intervening elements for securing the actuating member to a control linkage (or element connected to the left end of element 60 shown in figure 1) of the assembly.

Re: claims 2 and 20. Ring shows in figure 3 the limitation wherein the actuating member further includes a first plate member 82 connected to an upper surface of the substantially horizontally disposed member and to the first planar surface of the first substantially vertically disposed plate like member adjacent a first side edge thereof and extending substantially perpendicular thereto for shielding at least a second portion of the air bag actuator from foreign material and for providing added strength.

Re: claim 3. Ring shows in figure 3 the limitation wherein the actuating member further includes a second plate like member 31 connected to the upper surface of the substantially horizontally disposed member via intervening elements and to the first planar surface of the first substantially vertically disposed plate like member adjacent a second side edge thereof and extending substantially perpendicular thereto for shielding at least a third portion of the air bag actuator from foreign material and for providing added strength.

Re: claims 4 and 8. Ring shows in figure 3 the limitation wherein the first vertically disposed plate member includes at least one mounting aperture 64 formed



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therethrough. Or in an alternate interpretation the first vertically disposed member can be element 83 and the mounting aperture can be element 86.

Re: claims 6, 9, 10, and 21. Ring shows the invention as set forth in the rejection of claim 1 above and shows a guide means (upper portions of 74, the upper portion of thin piece directly connected to element 74, and the upper connector connecting the thin piece to element 74) the thin L-shaped piece of which directly connected to and disposed closely adjacent a first outer edge of substantially perpendicular (the horizontal part of the L-shape) to the planar surface portion of the first vertically disposed plate member for guiding and alignment and a securing means 82 connected to the first substantially vertically disposed plate member for enabling attachment to a rigid structure. In claim 9 the means connected to a radially opposed second surface of the first substantially vertically disposed plate like member is element 61.

Re: claim 7. Ring shows in figure 3 a pair of guide means 72,74, a second one of the pair of guide means (the lower portions of 74, the lower portions of thin piece directly connected to element 74, and the lower connector connecting the thin piece to element 74) disposed closely adjacent a second outer edge of and substantially perpendicular to the planar surface portion of the first vertically disposed plate member.

Re: claims 11 and 12. Ring shows in figure 3 a means or shoulder 56 for limiting reciprocal motion of the air spring actuator.

Re: claim 13. Ring shows in figure 3 an air inlet 64 in communication with the at least one air bag spring 59.



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Re: claim 18. Ring shows in figure 3 wherein the air spring actuator assembly further includes means 62,64 disposed therein for controlling volume of air in the at least one air bag spring.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ring in view of US Patent 6267043 to Plantan et al.

Re: claim 5. Ring shows in figure 3 the limitation wherein the means connected to the radially opposed second surface of the first vertically disposed plate member for securing the actuating member to the control linkage of the railway vehicle brake assembly includes at least one plate member or bottom plate of the leftmost side of element 60 having an aperture as shown formed therethrough.

Ring does not include the limitation of a pin member disposed in the aperture for securing the at least one plate member to such control linkage.

Plantan et al. teach in figures 2 and 4 the use of a brake actuator having a plate member 84 having an aperture 86 and a pin member 88 disposed in the aperture.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the aperture of the plate member of Ring to have

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included a pin member therethrough, as taught by Plantan et al., in order to provide a means of reciprocating element 60 within elements 83 and 84.

11. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ring in view of US Patent 4846785 to Cassou et al.

Ring describes the invention substantially as set forth above, but does not include the limitation of a visual travel indicator.

Cassou et al. teach in col. 4 lines 2-5 the limitation of an actuator including a visual travel indicator or markings 20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the portion of element 60 extending outside element 83 to have included a visual travel indicator, as taught by Cassou et al., in order to provide a means of monitoring linear travel of element 60 to monitor the amount of brake actuation for brake control purposes.

### ***Response to Arguments***

12. Applicant's arguments filed 7/5/05 have been fully considered but they are not persuasive.

With regards to claims 1 and 9, Applicant argues that the substantially horizontally disposed plate like member connected to the first substantially vertically disposed plate like member is not found in the Ring reference. Examiner maintains that Ring clearly shows in figure 3 a substantially horizontally disposed plate like member shown in the area of element 84 connected to the first substantially vertically disposed plate like member 81.

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With regards to claim 20, which is now claim 19 Applicant argues that Ring fails to show the at least one inflatable air bag spring being at least partially exposed with the railway car mounted brake assembly. Examiner notes that the air bag spring is, indeed, at least partially exposed with the surrounding railway car mounted brake via element 64.

With regards to claim 6, Examiner has considered an alternate perspective of Ring in which the guide means may be broadly interpreted as element 74 in connection with the thin piece attached to element 74. In light of such interpretation, the guide means (particularly the thin piece portion of which) is directly connected to and disposed closely adjacent a first outer edge 51 (outer and inner are relative terms that have been broadly interpreted).

Accordingly, the rejections have been maintained.

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*mmb*  
mmb

August 24, 2005

*Melody M. Bruch*  
8/24/05